



### Description

The Crestron® CLW-DIMFLVEX-230-P is a Cameo® in-wall 0-10 V dimmer designed for dimming 0-10 V ballasts or LED drivers, which features field-replaceable, engravable buttons. Along with the entire line of Cameo products, it can be configured with various button layouts and designer colors, making the dimmers more versatile and affordable than previous generations of in-wall dimmers. Its streamlined design matches the entire line of Cameo dimmers, switches, and keypads, making it a great addition to new or retrofit installations. In addition to its attractive look and feel, infiNET EX® communications technology brings proven reliability to the CLW-DIMFLVEX-230-P.

SPECIFICATION	DETAILS
Load Ratings	
Switch Output	5 A
Dimmer Control Output	Isolated 0-10 Vdc signal output (60 mA sink/source); Mechanically latching relay
Dimmed Load Type	0-10 Vdc fluorescent ballast, 0-10 Vdc LED driver
Switched Load Type	Incandescent, ELV, MLV, electronic fluorescent ballast, LED ballast, HID
Power Requirements	230 Vac 50/60 hz
Environmental	
Temperature	0° to 40 °C (32° to 104 °F)
Humidity	10% to 90% RH (noncondensing)

### Additional Resources

Visit the product page on the Crestron website ([www.crestron.com](http://www.crestron.com)) for additional information and the latest firmware updates. Use a QR reader application on your mobile device to scan the QR image.



### Installation

**WARNING:** To avoid fire, shock, or death, turn off the power at the circuit breaker or fuse and test that the power is off before wiring!

**CAUTION:** Check new installations for short circuits prior to installing a CLW-DIMFLVEX-230-P dimmer. With the power off, close the circuit and then restore power. If the lights do not work, or a breaker trips, check and correct the wiring or fixture (if necessary). Install the dimmer only when the short is no longer present. The warranty is void if the dimmer is installed and operated with a shorted load.

**NOTE:** There is no air-gap switch within the unit. Turning the unit off by pressing bottom button provides a mechanical air-gap. Turning the power off at the breaker before performing any servicing on lamps is recommended.

**NOTE:** Observe the following points:

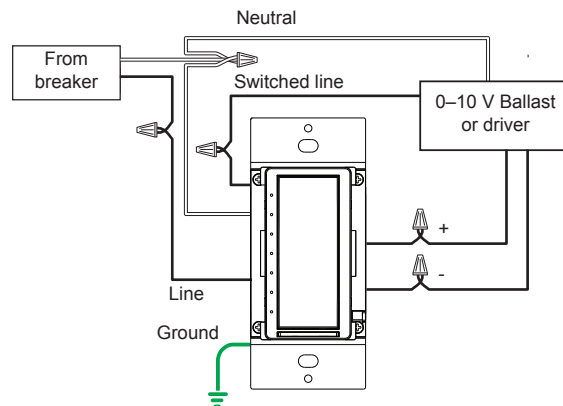
- Install and use this product in accordance with appropriate electrical codes and regulations.
- A licensed electrician should install this product.

**NOTE:** Before using the CLW-DIMFLVEX-230-P, ensure the device is using the latest firmware. Check for the latest firmware for the CLW-DIMFLVEX-230-P at [www.crestron.com/firmware](http://www.crestron.com/firmware). Load the firmware onto the device using Crestron Toolbox™ software.

**NOTE:** Multigang installations do not require derating.

Install the CLW-DIMFLVEX-230-P dimmer.

1. Turn the power off at the circuit breaker.
2. Wire the device as shown in the following diagram.



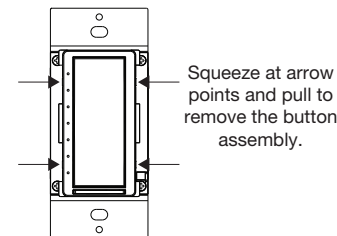
	Wire Color
<b>HOT or LINE</b>	Brown
<b>Neutral</b>	Blue
<b>Ground</b>	Green
<b>Switched Line</b>	Red
<b>+</b>	Purple
<b>-</b>	Gray

3. Push all power wires back into the electrical box and fasten the device to the electrical box with the provided screws.
4. Attach a decorative faceplate.
5. Ensure all buttons, including the program button, actuate without sticking.
6. Restore power at the circuit breaker.

### Changing Button Assemblies

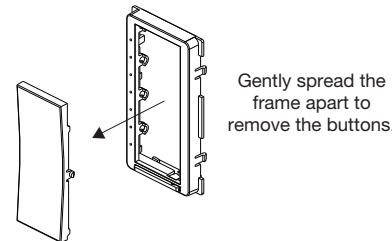
The button assembly can be removed and replaced with other button assemblies.

1. As shown in the following diagram, remove the button assembly by squeezing the sides of the bezel near the bezel snaps.

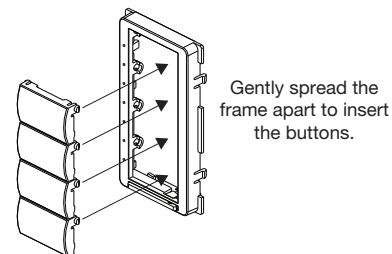


**NOTE:** When the button assembly is removed, power to the unit and load is removed automatically.

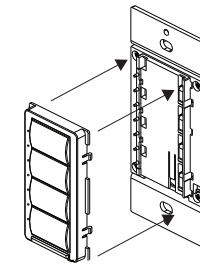
2. Remove button(s) from the front of the button assembly as shown in the following diagram.



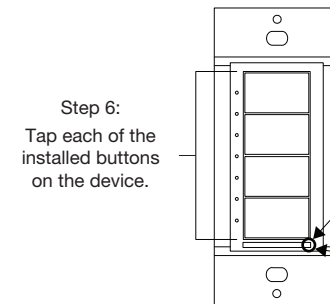
3. Insert new buttons through the front of the bezel and snap into place as shown in the following diagram. Ensure that the LED strip is on the left side.



4. Attach the button assembly to the device as shown in the following diagram. Ensure that the LED strip is on the left side.



5. Once power has been restored, press and hold the program button as shown in the following diagram. After 5 seconds, some LEDs start flashing. Continue to hold the button and proceed to step 6.



6. While holding the program button, tap all of the buttons in the new layout. The LED next to the tapped button lights.

**NOTE:** If the rocker switch is installed, press the top and bottom of the rocker.

7. After all of the buttons have been tapped, release the program button to save the settings.

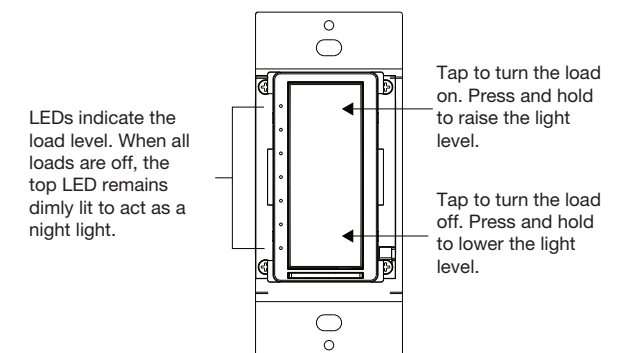
**NOTE:** Changing the button configuration alters the device's behavior. Refer to "Default Button Functions" for details.

### Operation

**NOTE:** The device may be warm during operation. This is normal.

The CLW-DIMFLVEX-230-P is shipped with a rocker switch already installed. In this configuration, the unit functions as shown below.

**NOTE:** Operation described in this guide assumes the CLW-DIMFLVEX-230-P is operating in Local mode (without the use of a control system). The device can also operate in Remote mode, in which button behavior is dictated entirely by the control system program.



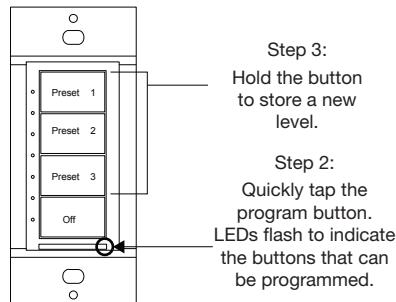
The CLW-DIMFLVEX-230-P can recall and store up to three presets depending on the installed button configuration.

Set a preset level:

1. Adjust the light level to the desired level.
2. Enter Programming mode by quickly tapping the program button as shown below. Buttons that are capable of storing a preset flash their LEDs.
3. Press and hold the desired preset button until the LED blinks (approximately 2 seconds). Release the button to store the new level.

If a button is not pressed, the device exits the Programming mode after approximately 5 seconds.

**NOTE:** Programming mode is disabled when the load is off.

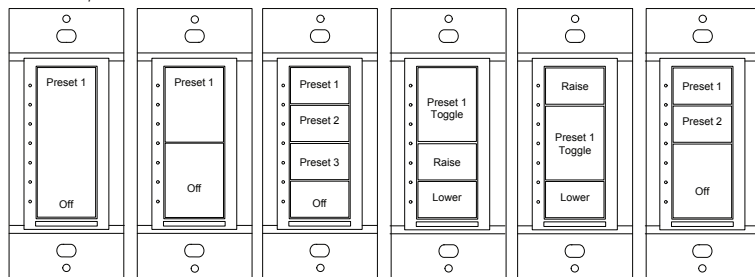


**NOTE:** A delayed off can be added via control system programming.

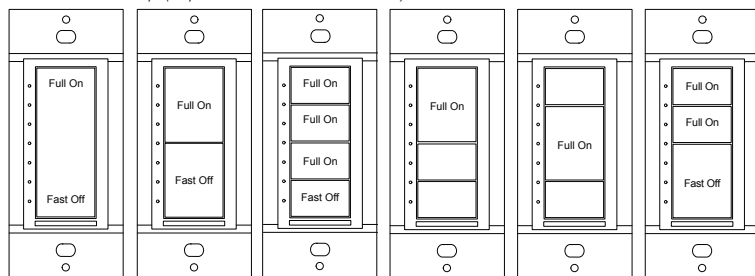
### Default Button Functions

The figures below illustrate the default functions available for each physical button configuration and tap- or hold-actuation sequence.

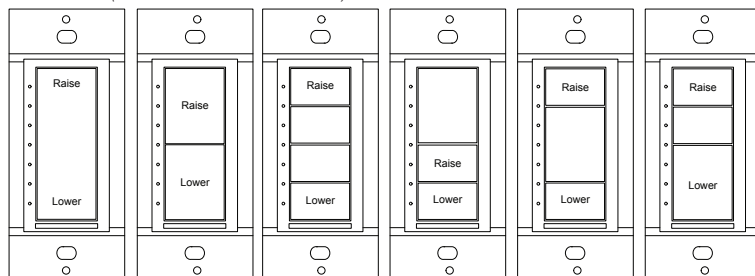
#### Button Tap



#### Button Double Tap (Tap twice within 1/2 second.)



#### Button Hold (Hold more than 1/2 second.)



### Wireless Communications

The device connects to the Crestron network via the infiNET EX communications protocol. Use the procedures outlined below to join or leave an infiNET EX network and to verify communications between the device and the control system.

#### Joining an infiNET EX Network

Before a device can be used in a lighting system, it must first join an infiNET EX network. To join an infiNET EX network, the device must be acquired by an infiNET EX gateway.

**NOTE:** A device can be acquired by only one gateway.

1. Put the infiNET EX gateway into Acquire mode from the unit itself or from Crestron Toolbox. Refer to the gateway's manual at [www.crestron.com/manuals](http://www.crestron.com/manuals) for details.

**NOTE:** In an environment where multiple gateways are installed, only one gateway should be in Acquire mode at any time.

2. Put the device into Acquire mode:
  - a. Tap the top button three times and then press and hold it down (tap-tap-tap-press+hold) until the top LEDs on the device blink once (this can take up to 10 seconds).
  - b. Release the button to start the acquire process. The top LED blinks slowly to show that the device is actively scanning the infiNET EX network.
    - The top two LEDs turn on for 5 seconds to show that the device has been successfully acquired by the infiNET EX network.
    - The top LED blinks fast to indicate that the device was not successfully acquired by the infiNET EX network. Tap the top button to acknowledge the failure. Ensure the gateway is in Acquire mode and within range before attempting the acquire process again.
3. Once all devices have been acquired, take the gateway out of Acquire mode. Refer to the gateway's manual for details.

#### Leaving an infiNET EX Network

To leave an infiNET EX network, put the device into Acquire mode, as described in "Joining an infiNET EX Network" above, when no gateway is in Acquire mode.

#### Verifying Communications Status

To check the communications status of the device, tap the top button three times and then press and hold it down (tap-tap-tap-press+hold) for up to 2 seconds. The LED blinks to indicate the communications status. Refer to the following table for details.

LED	COMMUNICATIONS STATUS
Turns on for 5 seconds	The device is communicating with the control system.
Blinks three times	The device is communicating with the gateway but the gateway is not communicating with the control system.
Blinks twice	The device was previously joined to the network but is not communicating with the gateway.
Blinks once	The device is not joined to the network.

### Troubleshooting

The following table provides corrective actions for possible trouble situations. If further assistance is required, please contact a Crestron customer service representative.

TROUBLE	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
An LED is constantly blinking and the dimmable load stays at a low level.	The purple and gray wires are shorted together.	Check the wiring.
An LED is constantly blinking.	The purple and gray wires are shorted together.	Check the wiring. <b>NOTE:</b> LEDs extinguish when the load is turned off.
The dimmable load does not dim.	The purple or gray wire is not connected.	Verify the wiring.

As of the date of manufacture, the device has been tested and found to comply with specifications for CE marking.



The product warranty can be found at [www.crestron.com/warranty](http://www.crestron.com/warranty).

The specific patents that cover Crestron products are listed at [patents.crestron.com](http://patents.crestron.com).

Certain Crestron products contain open source software. For specific information, please visit [www.crestron.com/opensource](http://www.crestron.com/opensource).

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Specifications subject to change without notice.